IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

PENDLETON DIVISION

CASSI C. FISHER as Guardian ad Litem for X.S.F., a minor,

Plaintiff,

v.

WINDING WATERS CLINIC, PC, an Oregon corporation; ELIZABETH POWERS, M.D.; KEITH DeYOUNG, M.D.; and RENEE GRANDI, M.D.,

Defendants.

Case No. 2:15-cv-01957-SU

OPINION AND ORDER

SULLIVAN, United States Magistrate Judge:

Plaintiff Cassi C. Fisher, a resident of the State of Washington and mother of and guardian ad litem for X.S.F., a minor, brings this medical malpractice action against defendants Winding Waters Clinic, Dr. Elizabeth Powers, Dr. Keith DeYoung, and Dr. Renee Grandi, all residents of Oregon and providers of medical services in Enterprise, Oregon. Plaintiff's claim arises from the obstetric care that defendants provided Fisher during her pregnancy with X.S.F., and from the brain damage and other injuries that X.S.F. suffered at or before birth, allegedly due

to defendants' negligent care. Plaintiff asserts one cause of action, for negligence under Oregon state law. The Court has diversity jurisdiction under 28 U.S.C. § 1332(a)(1).

Defendants move to compel plaintiff to make X.S.F.'s blood available for genetic testing under Fed. R. Civ. P. 35(a). (Docket Nos. 33 (original Motion), 35 (Amended Motion)). Plaintiff opposes the Motions. (Docket No. 39). For the following reasons, the Court DENIES defendants' Motion and Amended Motion to Compel.

FACTUAL BACKGROUND

I. Plaintiff and X.S.F.'s Medical Background

For the purposes of providing factual background, the Court takes the following allegations from plaintiff's Amended Complaint. (Docket No. 21). Defendant Winding Waters Clinic is an Oregon medical clinic providing family medical care, including obstetric care. *Id.* ¶ 2. Defendants Powers, DeYoung, and Grandi are medical doctors who each practiced at Winding Waters Clinic. *Id.* ¶¶ 3-5. Plaintiff, a Washington state resident, received obstetric care for her pregnancy with, and delivery of, X.S.F., beginning in May 2010. *Id.* ¶¶ 1 & 8. At plaintiff's initial office visit, defendants identified her pregnancy as "high-risk." *Id.* ¶ 9. Various warning signs presented themselves during plaintiff's pregnancy, including pregnancy-induced hypertension,[1] *id.* ¶ 10, and an abnormal fundal height,[2] *id.* ¶¶ 11 & 23. Defendants did not take certain steps to assess X.S.F.'s well-being in utero late in plaintiff's pregnancy, for example, through ultrasonography. *Id.* ¶ 12. On December 25, 2010, one day before her due date,

[1] "[H]ypertension [i.e., abnormally high blood pressure] during pregnancy in a previously normotensive woman or aggravation of hypertension during pregnancy in a hypertensive woman." *Gestational hypertension*, Stedman's Medical Dictionary 426290 (2014) (synonymous with "pregnancy-induced hypertension").

[2] "Fundal height is the distance from the pubic bone to the top of the uterus. This distance, measured in centimeters, is nearly equivalent to the weeks of gestation . . . ." 40 Am. Jur. *Trials* 1 § 41 (2017).

plaintiff presented to defendants with leaking fluid and the possibility of a ruptured membrane; defendants conducted certain tests of X.S.F. and sent plaintiff home. *Id.* ¶ 13. On December 29, 2010, plaintiff followed up with defendants and although her "membranes were stripped," defendants again sent her home. *Id.* ¶ 14. On January 4, 2011, plaintiff again presented with leaking fluid and, following certain tests of X.S.F., defendants performed a Caesarian section delivery of X.S.F. *Id.* ¶¶ 15 & 16. X.S.F. "was delivered in a severely depressed state with significant brain damage that has continued without improvement, and is permanent." *Id.* ¶ 17. Specifically, X.S.F. suffered "Partial Prolonged Hypoxic Ischemia[3] resulting in brain damage . . . with significant developmental delay, cognitive delay, learning disabilities, [and] physical disabilities . . . all of which are permanent." *Id.* ¶ 23.

II. Defendants' Proposed Genetic Testing

Defendants argue that it was not defendants' alleged negligence that caused X.S.F.'s brain damage, but rather that "some or all of X.S.F.'s impairments are more likely than not the result of a genetic condition unrelated to prenatal care." Defs.' Am. Mot. Compel (Docket No. 35), at 4. Defendants seek to perform genetic testing on X.S.F. to confirm this, including by conducting whole exome sequencing ("WES").

Defendants rely on perinatology and genetics expert Kenneth Ward, M.D. to support their Motion. Ward Decl. (Docket No. 34) ¶ 1; *see also* Defs.' Am. Mot. Compel. (Docket No. 35), Ex. 1 (Docket No. 35-1) (Dr. Ward's curriculum vitae). Dr. Ward testifies that, based on his review of X.S.F.'s medical records, he "believe[s] to a reasonable medical probability that [X.S.F.] has a genetic syndrome which is the cause of or a significant contributing factor of his

[3] "[G]enerally permanent brain injury resulting from a lack of oxygen or inadequate blood flow to the brain . . . ." *Hypoxic ischemic encephalopathy*, Stedman's Medical Dictionary 289320 (2014).

impairments in the records including neonatal seizures, urethral stenosis,[4] hypospadias,[5] developmental delay and possible neurological damage." Ward Decl. (Docket No. 34) ¶ 4 (footnotes added). X.S.F. has already undergone one round of genetic testing: comparative genomic hybridization (also called chromosomal microarray testing), which is the "first line" genetic testing for children with developmental disabilities or congenital abnormalities. *Id.* ¶ 7; *see also* Pl.'s Resp. (Docket No. 39), Raff Decl. ¶ 5 ("X.S.F. has had appropriate genetic testing to address the possibility of a genetic syndrome . . . ."). Dr. Ward states that "Whole Exome Sequencing and Comparative Genomic Hybridization are scientifically reliable genetic tests, which can be utilized to identify certain known genetic syndromes." Ward Decl. (Docket No. 34) ¶ 5. Dr. Ward testifies that "[m]ost medical geneticists," including himself, "would advise parents as well as litigants" to undergo further genetic testing, namely, WES, "in an attempt to establish a full and correct diagnosis." *Id.* ¶ 8. WES "examines the protein coding signals in . . . genes. . . . More specifically, 30 million DNA bases [are] analyzed and compared to reference (normal) gene sequences. Any abnormalities detected are compared to databases describing known genetic syndromes and diseases." *Id.* ¶ 9. Dr. Ward claims that "[t]here are several diagnosable syndromes which match [X.S.F.'s] finding quite closely . . . ." *Id.* He concludes his declaration by repeating his "professional opinion" that "in similar cases with children like [X.S.F.] that there is a greater than 50% probability that valuable information concerning the medical diagnosis and what caused it will be uncovered through the proposed testing." *Id.* ¶ 10.

[4] "[A] narrowing of [the] urinary tract." *Yarborough v. United States*, No. ED CV 10-346-VAP PLA, 2014 WL 1255945, at *4 (C.D. Cal. Mar. 5, 2014), *report and recommendation adopted*, No. ED CV 10-346-VAP PLA, 2014 WL 1255957 (C.D. Cal. Mar. 20, 2014).

[5] "A developmental anomaly characterized by a defect on the ventral surface of the penis so that the urethral meatus is proximal to its normal location . . . ." *Hypospadias*, Stedman's Medical Dictionary 430330 (2014).

III. Plaintiff's Opposition

Plaintiff argues that defendants' Motion to Compel is legally and factually insufficient. Pl.'s Resp. (Docket No. 39). She argues that Dr. Ward's testimony is deficient for failing to identify specific genetic syndromes or conditions for which defendants seek testing. She observes that one type of genetic testing—comparative genomic hybridization (chromosomal microarray)—has already been performed on X.S.F., with normal results, and that these test results have been provided to defendants. *See* Ward Decl. (Docket No. 34) ¶ 7; Pl.'s Resp. (Docket No. 39), Exs. 5 & 7.[6]

At eight days of life, X.S.F. underwent a brain magnetic resonance imaging (MRI) scan that showed "anoxic ischemic encephalopathy." Pl.'s Resp. (Docket No. 39), Ex. 1. X.S.F.'s treating neurologist, Erika Finanger, M.D., attributes X.S.F.'s brain injury to hypoxia (low oxygen). Pl.'s Resp. (Docket No. 39), Ex. 4, Finanger Dep. 17:5-19:4 & 56:3-13.

Plaintiff's expert, Michael Raff, M.D., offers testimony that diverges from Dr. Ward's. Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. Dr. Raff testifies that, based on his review of the medical records, he "believe[s] it is unlikely that there is a genetic etiology that underlies X.S.F's encephalopathy (abnormal brain findings and cognitive delays). In other words, [he] believe[s] it is unlikely that X.S.F.'s brain damage has a genetic cause." *Id.* ¶ 4. He states that "X.S.F. has had appropriate genetic testing to address the possibility of a genetic syndrome as an explanation for his . . . congenital abnormalities. Such testing included a chromosomal microarray analysis using up-to-date technology. . . . [N]o other genetic testing is medically indicated." *Id.* ¶ 5. He testifies that X.S.F.'s brain MRI and electroencephalogram (EEG) scans are "consistent with

[6] Certain of the exhibits to plaintiff's Response are not authenticated. *See* Pl.'s Resp. (Docket No. 39), Exs. 1, 3-7. These include deposition excerpts and test results. However, defendants have not objected to this evidence, and so the Court considers it herein; nonetheless, even if it were to exclude this evidence, the Court would not change its analysis or conclusion.

hypoxic-ischemic brain damage rather than a genetic syndrome." *Id.* ¶ 6. Moreover, "[o]f the known genetic syndromes that include X.S.F.'s . . . congenital abnormalities—but have no other major anomalies—none are associated with head MRI findings such as those seen in X.S.F.'s head MRI." *Id.* ¶ 7.

Dr. Raff also opines on the proposed WES testing. He asserts that it "uncovers vast amounts of genetic information that has nothing to do with the potential genetic syndrome." Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. ¶ 8. He characterizes WES technology as "so new and the experience so limited" that many insurers consider it "investigational and experimental" and so do not cover it. *Id.* He states that WES is "not considered standard-of-care genetic testing in children for whom the remote possibility of a genetic diagnosis has been raised." *Id.* ¶ 9. "Accordingly, whole exome sequencing (WES) is unlikely to determine the cause of [X.S.F.'s] brain damage." *Id.*

PROCEDURAL BACKGROUND

Defendants originally filed their Motion to Compel Genetic Testing on October 3, 2016 (Docket No. 33); they then filed their substantially similar Amended Motion to Compel Genetic Testing (Docket No. 35) the next day, on October 4, 2016.

The Court heard oral argument in this matter on December 6, 2016. (Docket No. 46). At that hearing, the Court ordered defendants to submit supplemental briefing to address specific questions, and plaintiff to submit supplemental briefing in response. The Court's questions were: (1) what specific syndromes do defendants seek to identify in X.S.F. with WES testing; (2) with what frequency does Dr. Ward perform WES on infants with impairments similar to X.S.F.'s; (3) what additional case law or legal authority supports defendants' position that WES

testing has been ordered in cases like the one before the Court, and that such orders comply with Rule 35. The parties have submitted their supplemental briefing (Docket Nos. 48-50).

LEGAL STANDARD

Under Fed. R. Civ. P. 35, a court "may order a party whose mental or physical condition . . . is in controversy to submit to a physical or mental examination." Fed. R. Civ. P. 35(a)(1). Such an order "may be made only on motion for good cause." Fed. R. Civ. P. 35(a)(2)(A). This rule establishes two requirements: that the mental or physical condition be "in controversy," and that "good cause" be shown. *Schlagenhauf v. Holder*, 379 U.S. 104, 111 (1964). The Supreme Court has instructed that "good cause" requires a showing of more than mere relevance; "there must be greater showing of need under [Rule 35] than under the other discovery rules." *Id.* at 118 ("The specific requirement of good cause would be meaningless if good cause could be sufficiently established by merely showing that the desired materials are relevant . . . ."). Neither the "in controversy" nor the "good cause" requirement can be "met by mere conclusory allegations of the pleadings." *Id.* "Rule 35, therefore, requires discriminating application by the trial judge." *Id.* Rule 35 examinations must not be "ordered routinely"; "[t]he plain language of Rule 35 precludes such an untoward result." *Id.* at 122.

"'Good cause' generally requires a showing of specific facts justifying discovery." *Franco v. Bos. Sci. Corp.*, No. 05-CV-1774 RS, 2006 WL 3065580, at *1 (N.D. Cal. Oct. 27, 2006). "Factors that courts have considered include, but are not limited to, the possibility of obtaining desired information by other means, whether plaintiff plans to prove her claim through testimony of expert witnesses, whether the desired materials are relevant, and whether plaintiff is claiming ongoing emotional distress." *Id.*; *see Ayat v. Sociètè Air France*, No. C 06-1574 JSW

(JL), 2007 WL 1120358, at *5 (N.D. Cal. Apr. 16, 2007) (citing *Franco* factors); *Mandujano v. Geithner*, No. C 10-01226 LB, 2011 WL 825728, at *3 (N.D. Cal. Mar. 7, 2011) (same).

"Even if good cause is shown, it is still within the court's discretion to determine whether to order an examination." *Franco*, 2006 WL 3065580 at *1; *Nguyen v. Qualcomm Inc.*, No. CIV. 09-1925-MMA WVG, 2013 WL 3353840, at *4 (S.D. Cal. July 3, 2013) (same). "Although the rule is to be construed liberally to allow the examination, the court must still balance the right of the party to be examined to avoid personal invasion against the moving party's right to a fair trial." *Franco*, 2006 WL 3065580 at *1. The court should also ensure the parties have a "balanced opportunity" to assess plaintiff's allegations and proof. *Nguyen*, 2013 WL 3353840, at *7 (quotation omitted). A court must inquire into the appropriateness of the tests for determining the contested physical or mental state. *Ayat*, 2007 WL 1120358, at *8-9.

DISCUSSION

I. Rule 35's "In Controversy" Requirement

In this medical malpractice action, plaintiff claims that defendants' negligent care resulted in X.S.F.'s brain damage. X.S.F.'s mental and physical condition is generally at issue. Defendants are entitled to attempt to show that their medical care was not negligent and did not cause or contribute to X.S.F.'s injuries. However, defendants have not shown that the *near entirety* of X.S.F.'s genome, as WES would assay, is in controversy. WES has the potential to uncover genetic predispositions to numerous conditions unrelated to X.S.F.'s known injuries, such as cancer, cardiac arrhythmias, neurologic disorders, and metabolic disorders. Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. ¶ 8. The testimony of defendants' expert, Dr. Ward, that some unidentified and unspecified genetic condition may be a cause or contributing factor to X.S.F.'s condition is insufficient to place the near entirety of X.S.F.'s genetic information at

issue, especially in the face of competing testimony by Dr. Raff that it is unlikely that X.S.F.'s brain damage has a genetic cause. Dr. Ward's testimony is even less persuasive given that the genetic testing X.S.F. has already been subject to—chromosomal microarray—did not indicate any genetic abnormality, and that the non-genetic testing performed (MRI, EEG) indicate that hypoxia caused his injuries. *See Rogers-Duell v. Ying-Jen Chen*, 974 N.Y.S. 2d 769, 775-76 (Sup. Ct. 2013) (finding, in medical malpractice action for infant's hydrocephalus, that "unspecified genetic testing" would reveal "vast amount of personal and private information" and so would "impose[] a special burden on" plaintiff; that "[a]lthough Plaintiff put his physical and mental condition at issue, the information to be gleaned from unspecified genetic testing goes far beyond the relevant issues" in the action; and concluding that "[w]hile DNA testing for identification purposes is ubiquitous, Defendants' proposed testing, to determine the genetic cause of a disability is uniquely novel").

Accordingly, defendants have not met their burden to show that the vast amount of X.S.F.'s genetic information, as WES would gather, is "in controversy."

II. Rule 35's "Good Cause" Requirement

Courts have emphasized the serious nature of physical examinations and blood draws. In *Union Pacific Railway Co. v. Botsford*, 141 U.S. 250, 251 (1891), the Supreme Court held that the lower court had no power to order the plaintiff to submit to a medical examination: "No right is held more sacred, or is more carefully guarded by the common law, than the right of every individual to the possession and control of his own person . . . unless by clear and unquestionable authority of the law." "The right to one's person may be said to be a right of complete immunity; to be let alone." *Id.* (quotation omitted). "The inviolability of the person is as much invaded by a compulsory stripping and exposure as by a blow." *Id.* at 252.

Following *Botsford*, the Ninth Circuit, in holding that Rule 35 did not permit the court to compel blood testing of a party's parent to confirm paternity, declared, "it is apparent that Rule 35 diminishing that sacred right should be strictly construed." *Fong Sik Leung v. Dulles*, 226 F.2d 74, 77 (9th Cir. 1955). In a similar case, the Ninth Circuit observed that it had "no jurisdiction to compel a person not a party to the action to yield his body to the invasion of a physician's instruments." *Dulles v. Quan Yoke Fong*, 237 F.2d 496, 499 (9th Cir. 1956). Nor does Rule 35 permit a court to order a physical examination of a non-party. *Scharf v. U.S. Att'y Gen.*, 597 F.2d 1240, 1243 (9th Cir. 1979).

Schlagenhauf v. Holder, 379 U.S. 104 (1964), provides leading guidance regarding the application of Rule 35; there, the Supreme Court analyzed Rule 35 in a negligence action involving the collision of a bus with a tractor-trailer. Defendant tractor-trailer owner cross-claimed against defendant Schlagenhauf, the bus driver, alleging that he was negligent and not physically or mentally capable of driving a bus at the time of the accident. *Id.* at 107. The tractor-trailer owner petitioned for medical examinations of Schlagenhauf, and the district court ordered nine physical and mental examinations. *Id.* at 108-09. The Supreme Court found this was in error. The tractor-trailer company relied solely on a "general conclusory statement" that Schlagenhauf was not physically or mentally capable of operating the bus. *Id.* at 120. This did not justify the "wide-ranging psychiatric or neurological examinations" nor "the broad internal medicine examination" ordered. *Id.* at 120-21 & 121 n.16 ("Here the examinations were ordered in very broad, general areas. . . . It is hard to conceive how some of these could be relevant under any possible theory of the case.").

Defendants have failed to show "good cause" to compel a blood draw to conduct WES testing on X.S.F. The *Franco* factors weigh against a finding of good cause: genetic information

has already been examined through chromosomal microarray testing, and the other tests performed indicate that WES would not reveal any additional relevant genetic conditions, given the strength of plaintiff's evidence of hypoxia as a likely cause of X.S.F's injuries.

The Court finds Dr. Ward's vague testimony regarding a possible, though unidentified, genetic cause of X.S.F.'s condition particularly troubling, and finds that such testimony does not support defendants' "good cause" argument. At least one court, in a medical malpractice action concerning an infant's brain damage, has balked at ordering sweeping genetic testing to search for an unspecified genetic cause. *See Rogers-Duell*, 974 N.Y.S. 2d at 775. Where courts have ordered genetic testing, the moving parties have specified particular conditions that they believe underlie the controverted injuries and that testing would confirm or deny. *See, e.g., Cruz v. Super. Ct.*, 121 Cal. App. 4th 646, 648-49 (2004) (ordering blood draw and genetic testing to ascertain whether "genetic alterations in blood clotting factors" may have caused or contributed to the child's brain injuries); *Harris v. Mercy Hosp.*, 231 Ill. App. 3d 105, 106 (1992) (holding that district court did not abuse its discretion in ordering a blood draw to determine if a specific genetic condition, Angelman Syndrome, caused the child's brain damage); *Kaous v. Lutheran Med. Ctr.*, 30 N.Y.S.3d 663, 665 (App. Div. 2016) (ordering genetic testing to confirm diagnosis of Fraser Syndrome as cause of infant's brain damage); *Kriloff v. Providence Health & Servs.*, No. 14CV11115 (Or. Multnomah Cty. Cir. Ct. Jan 12, 2016) (ordering genetic testing to test for Nance-Horan Syndrome and Warburg Micro Syndrome, which only WES could detect).[7] *But see Cutting v. United States*, No. 07-CV-02053-PAB-MEH, 2008 WL 5064267, at *1 (D. Colo. Nov. 24, 2008) (ordering genetic testing to determine whether allegedly negligent medical care

[7] *See* Pl.'s Reply to Defs.' Suppl. Br. (Docket No. 50), Ex. 1, Tsai Dep. 72:18-19 (deposition transcript from *Kriloff* case providing background information absent from the court's order compelling genetic testing).

during delivery resulted in infant's brain injury, especially where independent medical examination of the infant was already scheduled: "this is a good faith dispute that supports the requested, minimally invasive, one-time blood and urine draw at the time of the [independent medical examination]").[8]

Other considerations weigh against a finding of "good cause." Dr. Raff's testimony regarding the reliability and appropriateness of WES is more persuasive than Dr. Ward's. Dr. Raff testifies that WES is "new," "investigational," and "experimental," Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. ¶ 8, and that it is not considered standard-of-care genetic testing, *id.* ¶ 9. The genetic testing already done buttresses this testimony. Although Dr. Ward testifies that he would "advise" parties to conduct WES, Ward Decl. (Docket No. 34) ¶ 8, and describes its "value," *id.* ¶ 9, unlike Dr. Raff he does not state whether it is routinely administered or is the standard of care; this contrasts with already-performed chromosomal array testing, which Dr. Ward himself specifically says is "first line" testing and is recommended by the American

[8] The other cases defendants cite regarding good cause for ordering blood draws from minors are inapposite. Two of those cases consider blood draws to establish citizenship, and do not consider broader genetic testing. *See Scharf v. U.S. Att'y Gen.*, 597 F.2d 1240, 1242 (9th Cir. 1979); *Fong Sik Leung v. Dulles*, 226 F.2d 74, 75 (9th Cir. 1955). Another considered a blood draw to perform chromosomal analysis where the sample from an earlier blood draw had spoiled. *Otis v. Hyde Hosp. Ass'n*, 520 N.Y.S. 2d 884, 885 (App. Div. 1987). And in another the appellate court found that the district court abused its discretion in ordering a blood draw for genetic testing, because good cause did not exist where defendants, in support of their motion to compel, relied on the conclusory and "bare assertion" that "the relationship between genetic disturbances and brain damage is well documented and commonly accepted." *Thompson v. Palos Cmty. Hosp.*, 254 Ill. App. 3d 836, 841 (1993) (quotation omitted). The parties also cite an Oregon Circuit Court case denying a motion to compel genetic testing, *Cloutier v. St. Anthony Hosp.*, No. CV150474 (Or. Umatilla Cty. Cir. Ct. July 26, 2016); however, this is a two-page order issued without explaining its reasoning, and so does not lend any support to the parties' arguments.

Academy of Pediatrics, *id.* ¶ 7. The Court finds Dr. Raff's testimony more specific and supported by the record.[9]

Additionally, while a blood draw may not appear particularly burdensome or intrusive, the Supreme Court and Ninth Circuit have emphasized that any such invasion of the person is a serious procedure. *See Botsford*, 141 U.S. at 251 (describing the right to control one's person as "sacred"); *Fong Sik Leung*, 226 F.2d at 77 (repeating *Botsford*'s "sacred" language); *Dulles*, 237 F.2d at 499 (describing "the invasion of a physician's instruments"). That WES may uncover numerous other and very serious genetic predispositions multiplies the burden on X.S.F., and on X.S.F.'s family members, who share much of X.S.F.'s genetic material. Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. ¶ 10. This sweeping invasion of personal integrity and privacy strongly weighs against a finding of good cause. *See Schlagenhauf*, 379 U.S. at 120 (criticizing proposed examinations for being excessively "wide-ranging").

This potential burden on X.S.F.'s family members is exacerbated because WES testing of X.S.F. may require testing of his relatives as well. Pl.'s Resp. (Docket No. 39), Ex. 2, Raff Decl. ¶ 10. WES uncovers thousands of DNA sequence variants, and in order to determine whether a

[9] Defendants also cite the deposition of Dr. Joseph Gilhooly, one of X.S.F.'s treating physicians at Oregon Health & Science University, as evidence that any cause of X.S.F.'s injuries must have been before birth. O'Kasey Decl. (Docket No. 42), Ex., Gilhooly Dep. But the cited testimony is vague and inconclusive at best, and does not contradict Dr. Raff's testimony or support Dr. Ward's. Defendants rely on this statement: "if there was an injury, or whatever was causing his neurologic problems, whether it was from birth defects or lack of oxygen injury, happened prior to the time around delivery" *id.* 12:8-11, and "[b]ut for there to already be abnormalities indicates that something happened before delivery," *id.* 14:3-4. Dr. Gilhooly did *not* testify that a cause of X.S.F.'s condition was genetic. Moreover, Dr. Gilhooly testified immediately after the cited portions as to his uncertainty about the cause of X.S.F.'s injuries, thus undermining whatever support his testimony might give defendants: "I don't have any expertise to sort of date those findings and tell you how long it would have taken to see those changes develop," *id.* 14:5-7, and in response to a question regarding whether certain birth defects were "often genetically caused," he said "I'm not sure," *id.* 14:17-18. Dr. Gilhooly also testified that he "didn't have a very high suspicion for a chromosomal abnormality" underlying X.S.F.'s conditions. Pl.'s Resp. (Docket No. 39), Ex. 6, Gilhooly Dep. 39:5-6.

particular variant has caused a potential genetic syndrome, WES "inevitably requires whole exome sequencing of the parents of the individual as part of the testing process" for comparison. *Id.*[10] The Court finds this additionally troubling as such a requirement could force further physical intrusions of X.S.F.'s parents, for instance, and because it could disclose the highly personal and revealing genetic information of these individuals. Serious legal concerns are also presented. Under Rule 35 the Court cannot order a blood draw of non-parties, such as X.S.F.'s parents. *Scharf*, 597 F.2d at 1243. The Court's inability to order blood draws of X.S.F.'s relatives, and defendants' claim that they would not seek such draws, Defs.' Reply (Docket No. 41), at 7-8, undercut the purported value of WES, and thus weigh against the Court's compelling plaintiff to submit X.S.F. to it.

Thus, defendants have also failed to show that good cause exists to compel plaintiff to submit X.S.F. to a blood draw for WES genetic testing.

III. The Parties' Supplemental Briefing

The parties' supplemental briefing does not alter the Court's foregoing analysis; specifically, defendants have failed to cite persuasive legal authority regarding the appropriateness of WES under Rule 35 in these circumstances, or to provide sufficient concrete detail regarding the genetic conditions in X.S.F. that they seek to identify using WES.[11]

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[10] That WES additionally requires testing of family members is supported by the case defendants rely on in their Supplemental Briefing, *Meyers v. Intel Corp.*, No. CV N11C-07-009 JRJ, 2015 WL 3643470, at *1 (Del. Super. Ct. June 11, 2015), where defendant sought WES testing of the injured child's parents in order to establish that a "genetic structure [plaintiff] inherited from his parents caused his birth defects—not the alleged chemical exposures" at defendant's facility, as plaintiffs alleged.

[11] Dr. Ward only vaguely answered the Court's specific question regarding "the frequency that Dr. Ward does [WES] testing on infants with impairments." Minute Order (Docket No. 46). Dr. Ward testifies that:

> In recent years, I have performed or requested whole exome sequencing tests at least a thousand times a year, both in cases in which it is medically indicated due

The case defendants have cited regarding WES, *Meyers v. Intel Corp.*, No. CV N11C-07-009 JRJ, 2015 WL 3643470 (Del. Super. Ct. June 11, 2015), concerns whether the court had jurisdiction to order genetic testing of the injured child's parents (the court concluded that it did not). This case does not address the issues before this Court. In *Meyers*, for reasons the court's order does not make clear, the plaintiffs did not dispute defendant's entitlement to genetic testing of the plaintiff child. *Id.* at *1.[12] Other cases defendants cite are not helpful; they were either already cited to the Court and concern testing to confirm or rule out specific syndromes (unlike the broad search defendants propose here), or contain extremely brief and uninformative analyses.[13] Thus, the Court finds no authority defendants have identified, nor any the Court has been able to locate in its own research, that justifies genetic testing of the scope involved with WES where, as here, a defendant has not specified a particular genetic condition to identify and confirm.

Dr. Ward testifies, "[b]ased upon [his] review of the medical records, [his] education, training, and medical study," that there is "a *reasonable certainty* that X.S.F.'s medical [conditions] are not due to a birth injury," but rather, that there is a "a *medical probab[i]lity* that X.S.F[.] has an as-yet undiagnosed genetic syndrome." Suppl. Ward Decl. (Docket No. 49) ¶ 3

> to a child's presentation at birth and in situations in which the other types of genetic testing have not been diagnostic of potential syndromes.

Suppl. Ward Decl. (Docket No. 49) ¶ 2.

[12] In *Meyers*, the court, in concluding it would not order genetic testing of the parents, cited defendant Intel's concession that there was "at least a 35% probability" that the genetic testing would identify a genetic cause for the child's birth defects. 2015 WL 3643470, at *3. The *Meyers* court criticized this as a "low probability of success" that weighed against ordering the genetic testing. *Id.*

[13] These cases are: *Kaous v. Lutheran Medical Center*, 30 N.Y.S.3d 663 (App. Div. 2016); *McVay v. Johns Hopkins Hospital*, No. 24-C-14-005568, 2015 WL 10642695 (Md. Cir. Ct. Nov. 9, 2015); *Bennett v. Fieser*, No. 93-1004-MLB, 1994 WL 542089 (D. Kan. Feb. 25, 1994); *Dodd-Anderson v. Stevens*, No. 92-1015-MLB, 1993 WL 273373 (D. Kan. May 4, 1993); and *Harris v. Mercy Hospital*, 231 Ill. App. 3d 105 (1992).

(emphases added). However, Dr. Ward does not provide specific evidence for these opinions. Likewise, Dr. Raff testifies in his supplemental briefing that the "likelihood of a genetic diagnosis that includes X.S.F.'s brain injuries is *highly remote*." Pl.'s Reply to Defs.' Suppl. Br. (Docket No. 50), Ex. 2, Raff Decl. ¶ 4 (emphasis added). This conclusion lacks supporting evidence, and at most simply contradicts Dr. Ward's conclusions. Neither expert opinion is helpful in providing the specifics the Court requested.

In response to the Court's request that defendants identify specific genetic conditions that WES testing would reveal given X.S.F.'s symptoms, Dr. Ward submits:

> [T]here are over 1,300 diseases associated with neonatal seizures that can be detected using whole exome sequencing. There are hundreds of conditions that can be diagnosed using exome sequencing which can have hypospadias, anal atresia,[14] seizures, and intrauterine growth restriction[15] . . . . Examples include:
>
> Contiguous or single gene disruptions on chromosome 13 (particularly 13q33.2qter)
> Familial hypospadias (MAMLD1 gene)
> VACTERL association (HOXD13 gene)

Suppl. Ward. Decl. (Docket No. 49) ¶ 3 (footnotes added). The Court finds this cursory explanation unpersuasive and deficient as a response to the concerns the Court raised at oral argument and in its Minute Order (Docket No. 46). The Court is not satisfied that these "conditions" correspond to X.S.F.'s symptoms. Although Dr. Ward specifically denies that WES constitutes a "fishing expedition," defendants' submissions, especially in light of the serious concerns the Court expressed regarding defendants' apparent lack of specificity,

[14] "[C]ongenital absence of an anal opening due to the persistence of epithelial plug (persistence of the anal membrane) or to complete absence of the anal canal." *Anal atresia*, Stedman's Medical Dictionary 83510 (2014).

[15] "[F]etal weight ≤5th percentile for gestational age." *Fetal growth restriction*, Stedman's Medical Dictionary 777520 (2014) (synonymous with "intrauterine growth retardation"); *see also* 2 *American Law of Medical Malpractice* § 13:12 (2016) (discussing "symmetric intrauterine growth restriction" and "asymmetric growth retardation").

reinforce plaintiff's argument that defendants' Motions may well amount to little more than such an expedition.

Dr. Raff's reply testimony further exposes the deficiencies in Dr. Ward's testimony. Dr. Raff testifies that the first of Dr. Ward's listed genetic conditions, disruptions on chromosome 13, would in the "vast majority" of cases have been diagnosed by the already-conducted chromosomal microarray testing. Pl.'s Reply to Defs.' Suppl. Br. (Docket No. 50), Ex. 2, Raff Decl. ¶ 4. He also testifies that the second and third listed conditions, as to the MAMLD1 and HOXD13 genes, are not associated with the brain abnormalities seen in X.S.F.; that the MAMLD1 genetic condition is not typically associated with anything other than hypospadias; and that the HOXD13 genetic condition usually presents with digital congenital anomalies, which X.S.F. lacks. *Id.* The Court finds that the specificity of Dr. Raff's rebuttal testimony makes it more persuasive than Dr. Ward's testimony, and supports the conclusion that defendants have not made it sufficiently clear to the Court what they think they will find by having plaintiff submit X.S.F. to WES testing.

Finally, Dr. Ward testifies that defendants can interpret WES "in a very targeted fashion so that only conditions relevant to this lawsuit are disclosed. The family does not need to learn about other genetic conditions that X.S.F. or other family members may carry if they do not want this information . . . ." Suppl. Ward. Decl. (Docket No. 49) ¶ 4. As plaintiff persuasively argues, however, this potentially targeted disclosure of information does not satisfy plaintiff's, or the Court's, privacy concerns. Even if this genetic information is kept from X.S.F. and his family members for the time being, there is an invasion of privacy in the information having been gathered, and harm in the information simply existing. This information could well be disclosed against the family's wishes in the future, for instance, in conjunction with an insurance

application, or as the result of a court proceeding or court order, or from a computer hack of electronic medical records. As Dr. Raff observes,

> Such privacy concerns are addressed in the clinical setting by giving patients and their families the right to refuse whole exome sequencing given the invasive nature of the data generated. That right should not be discarded in order to pursue testing that is highly unlikely to provide the information being sought.

Pl.'s Reply to Defs.' Suppl. Br. (Docket No. 50), Ex. 2, Raff Decl. ¶ 6. The Court is not persuaded that WES's potentially sweeping genetic revelations can successfully be limited through selective disclosure.

CONCLUSION

For the foregoing reasons, defendants have failed to carry their burden to meet Fed. R. Civ. P. 35's "in controversy" and "good cause" requirements with regard to WES testing of X.S.F. Accordingly, defendants' Motion to Compel Genetic Testing (Docket No. 33) and Amended Motion to Compel Genetic Testing (Docket No. 35) are DENIED.

IT IS SO ORDERED.

DATED this 13 date of February 2017.

/s/ Patricia Sullivan
PATRICIA SULLIVAN
United States Magistrate Judge